

Dynamics of Community Health in Dentistry

An Honors Thesis (HONRS 499)

by

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Abstract

Dentistry is a changing field that is adapting to better serve more and more people. From cosmetic needs to resolutions in tooth decay, dentistry has significantly changed in the past few decades. This has created different methods for patients to receive their care. These methods include commercial practices, private practices, and community health facilities. In this paper I choose to focus more specifically on community health centers and private practices. Private practice is the preferred method for most patients, but with the increase of community health centers some patients have a stigma towards the care that they will receive from these dental clinics (Jones et al. 2013).

Community health centers allow patients that have financial burdens the ability to receive adequate care (Lamster et al. 2011). The significance of household income is very important when dealing with dental care, which is why community health centers are so critical to our communities and those that cannot afford private practice. This paper hopes to educate patients of their options, so that the "Health Center Stigma" is removed. Private practice and community health centers are all striving to provide the best care, and no matter where a patient chooses to receive their care they should be confident that they are receiving it by trained dental professionals no matter where they choose to go (Lamster et al. 2011).

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Purpose of Study

The purpose of this study is to understand the reasons why some patients choose to receive care from private practices rather than community health centers. Interview questions provided a direct perspective from dental professionals, which then allowed for retrieval of data to better support these claims. With the information gained I hope to educate future patients of options available to them, while also promoting community health dental clinics as adequate locations for receiving dental care services.

Introduction

We have all heard that brushing and flossing are the greatest ways to prevent tooth decay with the addition of regular visits to your local dentist. With a combination of these we are able to maintain our teeth longer than our ancestors. We have come a long way, showing that oral care has changed significantly in the last century due to many technological advances, which have allowed us to have more options than just extractions. Dentists are able to perform procedures as root canals, crowns, and fillings, allowing dentists to preserve the patient's teeth by stopping the progression of tooth decay.

Dentistry is a field that has always interested me since I was a junior in high school. Dentistry combines artistry and medicine together with a touch of empathy and therapy. Artistry, because dentists are given only a template of the mouth and with this they are able to create a masterpiece for patients through providing dental care. Medicine, because dentists deal with the anatomy and treatment of patients so they have to be knowledgeable. Empathy and therapy, because for any medical profession

this skill is something that aides in comforting patients and makes them feel more at ease to accept and trust the care that they are receiving.

Initially, I knew I wanted to be a dentist because I liked their schedules and the flexibility they had in owning their own businesses. Now that I have grown older and have spent numerous hours in multiple dental offices, I have come to learn that there is a lot more to dentistry than what originally drew me in as a high-schooler. Dentistry is an art that creates healthy lasting smiles for patients, giving them more confidence to be themselves around others.

A smile tells a lot about a person, such as their level of comfort in a situation while creating a first impression to those around. When you are more comfortable to show your teeth and smile there are more doors opened to you. When someone is limited by the condition of their teeth, their outward reflection may become apparent causing them to smile less and come off as more timid to those around them. A smile says a lot about a person, but so does the lack of no smile.

I remember one experience I had while interning. A patient came in and had decay on their two front teeth. After the decay was removed and the composite fillings were replaced on the teeth for protection and to add shape the tooth, the patient was more than ready to view his new smile. The dental assistant handed him the mirror and the patient was filled with joy at the sight of his new smile. "From my perspective, dentistry creates a positive change in a person even from a minor procedure (fillings) because they no longer have to suffer from sensitivity caused by a cavity. The patient can, in most cases, feel back to normal when chewing and eating their food because they no longer have pain. But with that said, some people don't have sensitivity with

cavities and they want to have to filling placed for esthetic purposes such as anterior fillings on 8 and 9 where you're essentially rebuilding the front teeth for them. In this case the positive change is obviously that the patient can smile again without being embarrassed," stated dental assistant A from Open Door, on her perspective on minor procedures and how they can change a patient's outlook. It's amazing how a 15-minute filling procedure could drastically alter the perception that someone has of himself or herself!

This is why I love the field of dentistry and cannot wait until I graduate so that I am able to create a difference in someone's life. We all have our own unique experiences when it comes to dentists, some are good and some are bad. However, with the advancement of dental equipment and pain relief procedures more and more people are enjoying going to the dentist, due to the efficiency and painlessness of the procedures conducted.

Dentistry like many fields has its own richness and history. During the Tudor period methods for teeth cleaning were quite effective. This method involved the use of water, salt, rosemary and cuttle-fish, which was rubbed on with cloths, twigs or sponges (Worsley, 2011). Most of the rich during this era consumed a lot of sugar, which resulted in severe cavities that turned teeth black (Worsley, 2011). During this time a dentist was considered a barber-surgeon who conducted many different procedures around the body (Worsley, 2011). These procedures consisted of removal of rotten teeth, amputation of limbs, and cutting of hair (Worsley, 2011).

As you can imagine, dentistry was nowhere close to what we now know it to be. In the late 17th century dentistry was becoming more recognized as its own field within

medicine (Worsley, 2011). The first dental book, *The Operator for the Teeth* which was written by Charles Allen in 1685 discussed the role of healthy teeth with regard to chewing and tooth pain (Worsley, 2011). At this time there was a spread of knowledge when it came to oral care, people began to value healthy looking teeth, which began the trend of portraits showing toothy smiles (Worsley, 2011).

Although the knowledge of maintaining healthy teeth was spreading, the cause of tooth decay was still not fully understood. People continued to consume sugars that would result in tooth decay, which is why whitening products developed claiming to have the capability of whitening blackened teeth (Worsley, 2011). These products were developed around the 18th century (Worsley, 2011). Salt was a popular tooth cleaner, which quickly began to replace twigs (Worsley, 2011). Some other popular tooth cleaners included bicarbonate of soda and pig or horsehair bristle-brushes (Worsley, 2011). During this time there were critics who had their doubts on the safety of bristle-brushes, stating that with time this method would eventually prove to be detrimental to gums and surrounding teeth (Worsley, 2011).

However, with the advancement of these teeth cleaning methods there was still tooth decay within these populations. Due to the continued issues with tooth decay false teeth were developed (Worsley, 2011). During this time John Hunter, a surgeon, performed a procedure that resulted in the transplant of human teeth into the mouth of a patient with gaps between their teeth (Worsley, 2011). This procedure quickly ended in the early 19th century because of moral concerns about the where the teeth were being extracted from and also due to the risks of disease transfer (Worsley, 2011).

In the 19th century dentures contained real teeth, but with time this method was replaced with another material known as porcelain (Worsley, 2011). Porcelain was a material that was white and also durable, it included ivory, mother-of-pearl, silver, agate, and walrus-tooth (Worsley, 2011). Despite the popularity of porcelain they were still characterized as being very uncomfortable for most patients, and in 1846 a dental book described teeth made with this material “as too insecure in the mouth to admit of any attempt at complete mastication of food” (Worsley, 2011). Luckily, with time comfortable and secure means were developed for dentures making them more comfortable for patients (Worsley, 2011). Dentures were more snugly fit allowing individuals to eat well without any issues (Worsley, 2011). This created a great desire for dentures to the point where patients wanted to avoid dental bills and future pain by extracting all of their teeth so that they only had to depend on their dentures (Worsley, 2011).

It may seem extreme to have all your teeth removed, but during a time where preventative care was not practiced many saw this as a justifiable procedure. With this brief history of oral care one becomes more appreciative of the care that we receive going to the dentist.

Preventative oral care is a more recent development in dental history. When dental health care providers demonstrate preventative services to a patient, they show the significance of maintaining good oral health. By obtaining one dental cleaning a year with an examination or x-ray patients are more likely to avoid non-elective procedures (Moeller et al. 2010). Non-elective procedures can include fillings, crowns, root canals, and even teeth extractions (Moeller et al. 2010).

By maintaining a regular schedule for teeth cleanings and examination, patients are placing a higher priority on their oral health care creating better access to preventative care, than those that choose to only see the dentist when they have to (Moeller et al. 2010). A small cavity may be a \$100 fill but with fewer visits to the dentist this could turn into a \$1000 dollar root canal. Likewise, an \$80 cleaning could become \$2000 worth of gum disease treatments as well (Moeller et al. 2010).

In the US Surgeon General's 2000 report inadequate oral health in America was highlighted and given the name the "silent epidemic" (Jones et al. 2013). With the growing knowledge of the importance of an annual dental check-up there is also a demand for an increase in dental offices for patients from varying walks of life. Due to this dentistry has adapted to accommodate patients with different ways for accessing their preferred method of dental care.

These methods include commercial practices, private practices, and community health facilities. Commercial practices are those that are run in a corporative setting such as Aspen Dental, which have multiple Dentists that work together to provide care for patients. Private practices are probably the most familiar to people. These types of practices are usually run by 1-2 Dentists who work together in management and patient care. The third type of setting is a community health facility. These are run with 1-2 Dentists who work in a cooperative setting to treat patients, while providing sliding fees for patients who need financial assistance.

No matter who you are, one thing is certain and that is we all require proper oral health care so that we can remain as healthy as possible. With each category in dentistry there are varying opinions and misinformation that patients may experience.

Causing them to wonder what really is the difference between them? In this paper I am going to focus on the differences between private practice and community health facilities to better educate readers, so that they are able to determine what method works best for them.

Methodology

When writing a scientific paper it is always important to depend on proper methods for retrieving information. In this paper I used resources, which included literature references, interviews, and personal reflections. The use of these forms was determined to be the best in supplementing my research thesis. All of these methods have their own advantages and a disadvantage, which is why using these methods together, would create the best approach on fulfilling my research. These advantages and disadvantages will be further explained.

Due to the possibility of working with human subjects I was advised to submit my research protocol to the Institutional Review Board (IRB) located at Ball State University, which follows the ethical principles laid out by the Belmont Report. This board is a peer-reviewed committee charged with the responsibility of protecting the rights and welfare of humans involved in any research (Human, 2014). This is to ensure compliance with laws and national standards regarding the ethical treatment of human subjects (Human, 2014). Once the protocol was received by the IRB it was reviewed. At the conclusion of my review, it was determined that the protocol did not fit the definition of human subject's research, meaning that it did not need IRB approval. This then allowed me to begin my interviews.

Interviews were a very important component for data collection to aid in my research. Interviews were used because dentistry is a very dynamic division of healthcare, involving different people all experiencing different perspectives. These perspectives range from patients, management personnel, dental assistants, dental hygienists, and dentists. Since the research is pertaining to community health, interviews would better aid readers in understanding the different views that each health care provider experiences.

Another reason interviews were used was to show the differences and similarities between private practice and community health dental practices. Each of the different perspectives also varied depending on the environment the dental health care providers worked in, whether that was private or community health. Private practice would vary from community health practices in a number of different parameters, such as, the number of patients. Due to this these interviews were important to show readers such differences.

Interviews were conducted in person, by email, and over the phone. The interviews conducted in person were 45 minutes long. This was done for Dr. A and Dr. B at Open Door's Dental clinic. Each were asked a question orally and given time to respond. Upon conclusion of the interviews both Dr. A and Dr. B also submitted a written response to further clarify responses. Dr. C a dentist with her own private practice was also interviewed over the phone. As the dentists orally responded to questions their answers were written down. The time allotted for interviews conducted for the dental hygienist and assistants was 20 minutes. I wanted to gain insight on the different perspectives of dentists and dental assistants, by asking similar questions, and

analyzing the similarities and differences in responses. Here is a look at the questions asked.

Questions for Open Door Dentists

Open Door Dentists: Dr. A and Dr. B

1. What are some differences you see in private practice versus community health.
2. Now that you have told me some differences, what are some reasons that you choose to stay with community health?
3. Do you feel as if you are able to provide adequate care for patients with the resources that you are provided?
 - a. If Yes- What are some important resources?
 - b. If No- What resources would you need to be able to provide adequate care?
4. What are some procedures you perform most frequently in the dental facility at Open Door?
 - a. What are the least frequently?
 - b. Why do you think those procedures fall under those categories?
5. How is a patient's behavior when they enter the dental facility?
 - a. Does this change once a patient's procedure is concluded?
 - b. Does this differ from what you have seen in private practice?
6. What are some changes that you may be concerned with when the changes occur in the new healthcare reform?
 - a. Do these changes affect dentistry in community health?
 - b. Positives? Negatives?
7. What is something you appreciate most as a dentist working in community health? Why?

Private Practice Interview Questions

Private Practice Dentist: Dr. C

1. Why have you chosen to own your own private practice?
2. Do you feel as if you are able to provide adequate care for patients with the resources that you have?
 - a. If Yes- What are some of these important resources?
 - b. If No- What resources would you need to be able to provide adequate care?
3. What type of procedures do you perform most frequently in your private practice?
 - a. What is the least frequent?
 - b. Why do you think this is the case for these procedures?
4. How is a patient's behavior when they enter your private practice?
 - a. Does this change once a patient's procedure is concluded?
5. What are some changes you are concerned with once healthcare reform occurs, with regards to owning your own private practice?

- a. Do these changes affect dentistry in private practice?
 - b. Positives? Negatives?
6. What is something you appreciate most as a dentist working in private health?

Open Door Dental Assistant

Dentist Assistants: B

1. Why have you chosen to work in community health as a dental assistant?
 - a. What are some positives?
 - b. What are some negatives?
2. What are some things you enjoy doing as a dental assistant in community health?
3. Do you think that the Dentist is able to provide adequate care with the resources given to them in community health?
 - a. Do you feel as a dental assistant you are able to provide adequate care as well?
4. What are some concerns you have for when the new healthcare reform occurs?
5. Do you feel patients appreciate the care that you provide at Open Door's dental clinic?

Private Practice Dental Assistant

1. Why have you chosen to work in private practice as a dental assistant?
 - a. What are some positives?
 - b. What are some negatives?
2. What are some things you enjoy doing as an assistant in private practice?
3. Do you think that the Dentist is able to provide adequate care with the resources given to them in their private practice?
 - a. Do you feel as a dental assistant you are able to provide adequate care as well?
4. What are some concerns you have for when the new healthcare reform occurs?
5. Do you feel patients appreciate the care that you provide in your private practice?

The interviews were conducted in person and through the email. To ensure no HIPPA violations occurred during these interviews patients' names, personal information, and appointment details were not discussed or written in detail during interviews. The responses to these questions during the interviews were not shared with anyone else during the interviewing process. After the conclusion of my interviews, I began searching for my literature references, which would be used to enhance data

collected from my interviews. The disadvantage of solely depending on interviews is that biased information could be presented, which is why having literature references to support the claims given during interviews will support my interview questions.

Literature references were used in my thesis to add credibility to my research and interview results. The topic of community health in Dentistry is one that has been covered before, which is why using information that is peer reviewed previously is advantageous to my paper. Being part of the scientific community and contributing to it with my research I want to make sure my data can be validated and confirmed. Most of my literature references were found by going through the Ball State University Database service. These databases proved to be the most efficient at retrieving a vast amount of information, cutting research time in half.

The main database used was Academic Search Premier. Academic Search Premier is a database that combines a large amount of information together from other numerous databases, making it easier to use as a primary database. Through this, different articles from scientific journals and books were found. These articles were related to my research and data collected during my interviews. The disadvantage of solely using literature references to support my paper would not allow me to incorporate my observations and interview results. My research would not be very wholesome but would consist of only previously used data, instead of incorporating my own data.

The final form of research that I used was my own personal experience. I am currently enrolled in Biology 394. This class is a practicum, which allows me to work in a specific field in my major so that I can gain more experience in that particular area. Due to my Biology Pre-Dental major, I choose to go to Open Door's Dental clinic. I was able

to gain knowledge of the dental field as I helped around the office. I was able to make my own observations and gain information that could be used during my research.

With this information, I could research literature reviews that could help better explain my observations and any contradictions that I found. Observations were collected in a journal and recorded for further review. This journal was not observed by anyone but myself, to guarantee privacy. The disadvantage of only depending on my observations is that my experiences may not be exact for other locations. Some health centers may experience different circumstances.

Through these methods of data collection I was able to better enrich my data, while facilitating the reader's ability to learn more about the two different of dental fields being compared. Once again all of these methods have their own advantages and disadvantages, which is why using these methods together created the best approach for fulfilling my research goals.

Data Analysis of Interview Questions (See Appendix 1-5)

When I first starting job shadowing in dentistry I was more interested with the aspect of private practice, because that was what I was familiar with. Due to my interest in private practice I job shadowed at Royale Family Dentistry and other local private practices. However, in my senior year of college I started interning at Open Door's Dental Clinic. With this experience I was able to see the different aspects that dentistry entails. Open Door is a community health facility that has a full functioning dental clinic, which provides dental services to the community. One great advantage that I had during my internship experience was that I was able to see how a dentist handles the different aspects of their profession within private practice and community health.

The dental profession has evolved greatly in the past 50 years, and more specifically, in the last 20 years we have seen the most major changes in this field. (Lamster et al. 2011). Due to the development of new dental materials and technologies the dental profession has created more aesthetic options for patients, that aid in the transformation of smiles, appearances, and lives (Lamster et al. 2011). More than 70% of adults saw a dentist in the past year, this percentage represents an amazing opportunity to improve in general health and oral health, which was reported in the *American Journal of Public Health* (Lamster et al. 2011). Although these statistics are positive, the dental profession faces its own set of challenges. One of these challenges is how to make dentistry more equitable for those that are disabled, poor, aged, and living in areas that are not close to oral health care services (Lamster et al. 2011). With this we will now look at the different perspectives of a dentist in community health and private practice.

When asked about the differences Dr. A from Open Door's Dental Clinic observed in private practice versus community health she answered, "we see a higher rate of individuals who have never seen a dentist but may well be 30 years old or more. We also see many individuals from extreme poverty with extensive decay. The majority of smile-changing procedures are done by tooth extraction and dentures, as opposed to cosmetic procedures like crowns, bridges, and root canals. A patient is much less likely to return for a follow-up visit or comprehensive care when they are pain-free, although they may have a lot of work left to do" (Appendix 2, question 1).

This compares to private practice because, "Due to regularity of the appointments, we are able to catch things early to prevent diseases. Most patients also

have insurance so they are more readily able to come to the dentist, compared to some cases where patients wait till it may be too late to save the tooth due to lack of insurance”, says Dr. C a dentist at Royale Family Dentistry (Appendix 3, question 3b). With these differences it is important to note that insurance is something very important when receiving proper oral care. During my observations I noticed that there was a correlation between income and dental insurance, demonstrating that they may go hand in hand when associated with regular dental visits.

Household income is a big variant in dental care, which was demonstrated in a study conducted for adults, aged 30-61 who lived in Australia (Anikeeva et al. 2013). Of the 2790 patients seen the last 12 months at Open Door’s Dental Clinic only 262 had private insurance. The remaining patients used other forms of payment to receive their dental care. Dental insurance and income positively associated with regular dental visiting (Anikeeva et al. 2013). This can be seen at Open Door, where some of the patients coming from poverty do not see the dentist as often, compared to patients receiving care through private practice dental offices. Out of 2790 patients seen in the last 12 months at Open Door’s Dental Clinic 1580 of the patients were at 100% of poverty or below. This is a significant number, which further shows the importance of the dental clinics in community health centers for providing care for these patients.

“The dispensable income is low in health center for most patients. The failure rate for coming in and following through with an appointment, which is scheduled months in advance, is also higher. The procedures are different in health centers we do more fillings and extractions while in private the procedures are higher dollar ones that are more cosmetic”, stated Dr. B from Open Door (Appendix 1, question 1). People with

higher incomes face less financial burdens so affording dental care is easier due to the partial reimbursement that is provided (Anikeeva et al. 2013). Although lack of insurance may be a determinant for some patients, there are some aids available that help relieve this problem such as Medicare and Medicaid.

For many retired citizens, paying for dental care can prove to be difficult, which is why a system like Medicare was developed to help those who are elderly and lack an income (Moeller et al. 2010). At Open Door's Dental Clinic out of the 2790 patients seen in the last year, 174 of these patients used Medicare. Past studies showed that preventive dental care visits primarily focused on younger populations, which is why Medicare is good at showing the importance of preventative care for all ages by filling the gap on care for elderly populations (Moeller et al. 2010).

In younger populations Medicaid is used to provide health care services to those that are in financial need through a federally and state-funded program (Kelly et al. 2005). In the last 12 months Open Door Dental Clinic has seen 643 patients with Medicaid, out of the 2790 seen. One group in this category of younger populations is children. Although children's oral care for preventative measures has greatly improved, oral care still remains the most prevalent healthcare need for children (Kelly et al. 2005).

Tooth decay is the most common chronic childhood disease in the United States (Kelly et al. 2005). Children that come from lower income households are less likely to receive oral care than children from middle to higher income households (Kelly et al. 2005). Children from households where caregivers have low educational attainment are also more at risk for receiving poor dental care, which was reported by a study done with caregivers of Medicaid enrolled children in Jefferson County, Kentucky (Kelly et al.

2005). If a parent values continued visits to the dentist then a child is more likely to go to the dentist, but if the parent does not then the child is likely to receive proper dental care. "On average we see about 1-2 children a day, some days more than others, and also depending on different times of the year. When school is in session we see less. Typically when we do see a child it is because a Pediatrician has referred them here, and I would say 75% of the time we have to refer them to a Pediatrician because, they have issues that we cannot address. Typically it is because the parent does not take responsibility, and their teeth are also in bad condition, which we can then always count on the child having a similar situation. The main thing we see is a parent putting their child to bed with a bottle, because they don't want to deal with their child not wanting to go to sleep. Children in private practice received more care, because the parents also receive care," stated dental hygienist A from Open Door on the topic of children that receive teeth cleanings at Open Door. In the last 12 months Open Door's Dental Clinic saw 402 patients that were 18 and under, 317 of which were covered by Medicaid. That means that 14% of the patients seen in last year at Open Door's Dental Clinic were minors. Now let's look at a quote from Dr. A on the socioeconomic background of patients at Open Door.

"The socioeconomic background of patients is different. The recall is 6 months versus a year and the needs of a patient are different. The conversations are different, the decay rate is higher while the dental education is lower, stated Dr. A (Appendix 2, question 1). Providing dental care for all ages is something that is very critical in maintaining an overall healthy individual, which is why aids such as Medicare and Medicaid can help those that are in need. "In private practice things are pretty similar,

but the children came in more because the parents are also coming in. The private practice that I worked as a dental assistant, did not accept Medicaid, and some children may have needed a filling or two, but nothing as severe as what we would see in a community health center. When I worked as a dental hygienist in another private practice that did take Medicaid, the children were in the same situation as here,” stated Dental hygienist A from Open Door Dental Clinic. Allowing children to receive these services creates a lifelong interest in maintaining their oral health and also allows them to teach their children the same healthy habits they learned. It is also important to note that private practice and community health facilities accept both of these aids in their offices.

Although a large percentage of the US population receives outstanding oral health care due to different aids a significant number of people are still unable to access regular care as stated by the *American Journal of Health* (Lamster et al. 2011). One possible solution to this problem would be to better engage dental students on the current state of this issue while they are in school. Due to my previous bias based on dental care that I received, I did not initially see the value of community health dental facilities. Now that I have been exposed to this aspect of dentistry, I believe that more people should recognize the need and importance of providing dental care for those who face limitations in receiving adequate care.

Dental schools have the responsibility of teaching students how to provide care to the underserved in our society, specifically the poor, disabled, aged, and those that are isolated (Lamster et al. 2011). The American Dental Education Association (ADEA) states that one of the three major concerns in regards to dentistry is the revamping of

the dental school education (Lamster et al. 2011). This is what makes resources such as Open Door's Dental Clinic so critical for resolving issues that some in our own communities face. Open Door's Dental Clinic is a state-of-the-art dental clinic that provides dental cleanings, fillings, extractions, root canals, dentures, and emergency visits most days of the week for patients that need to be seen immediately (Open, 2014). Dr. B stated, "The resources are the same as private practice and more due to the government funding for upgrading. This makes cost of buying equipment is less, incase a piece of equipment is destroyed. We also have volunteer resources. Our patients also have more resources for funding vs. out of pocket," on his perspective of the resources available to Open Door's Dental Clinic (Appendix 1, question 3a). Open Door does all of this while providing a waived fee scale so those that have financial issues are still able to access outstanding care (Open, 2014). Out of the 2790 patients seen in the last 12 months at Open Door's Dental Clinic 1634 were placed on a sliding fee, which allowed them to receive adjusted prices on their dental procedures. That means 58% of the patients seen received an adjusted price on their procedures.

"Our patients are many times saving finances for procedures for a 6 month to a 1 year period or must wait for a tax refund, inheritance, etc. before proceeding with elective services (i.e. If the toothache could be solved by extraction for much less money than saving the tooth with a root canal and crown, the patient will likely opt for its removal)", stated Dr. A (Appendix 2, addendum question 4b). With so many offered services to help with dental costs, it is easy to see why Open Door's Dental Clinic is so important to the Muncie community. "There is more of a need base, it's more rewarding and there is an immediate personal fulfillment with less stress," said Dr. B at Open

Door's Dental clinic on his perspective on why he enjoys providing dental care at a community health center (Appendix 1, question 2). "I appreciate the way this type of dentistry changes lives. We, many times, get to meet an individual who is down on their luck and living in poverty. Being able to offer them quality dentistry at a cost they can find a way to afford is so rewarding and maintains a level of dignity for the patient. They are coming to a "free" clinic, yet they are getting the same level of quality as a regular private practice office", stated Dr. A (Appendix 2 addendum, question 2).

Due to the introduction of new dental technologies and procedures the dental profession has become more efficient and effective in treatment options, which aids in meeting the cost of providing mandatory dental services for those in community health (Lamster et al. 2011). Since we have heard from the perspective of Dr. A, here is the perspective in private practice from Dr. C who states, "I am able to provide care that is more than adequate for my patients" (Appendix 3, question 2). Both centers are able to provide good care for their patients, and although technology is great in providing adequate care for these patients, proper staffing is also a great resource for these facilities. When assessing a dental practice it is easy to see the dynamics that the dentist has with their dental assistants and other staff members.

Having a great interaction between staff and patients is one facet of creating an environment that will allow patients to be more comfortable and relaxed. In community health, Dr. A stated that "the office that I am in is able to provide services far more times better than any private practice office I have been involved with in the past experiences. I attribute this to my staff's quest for cleanliness and attention to upkeep of the equipment and Open Door's commitment to providing a state-of-the-art facility for both

staff and patients alike,” (Appendix 2, addendum question 3). In regards to staff this is similar to what is stated in private practice, “Staff is the most important resource for me because the staff that has been with me a long time allow for a continuity of care for my patients. This also allows my patients to become like family because they choose to continue to come. Also with owning my own practice I get to provide Pro bono work for all the things I’ve been blessed with,” said Dr. C (Appendix 3, question 2a).

Both of these types of practices value the importance of staff members and their effect on the dental experience that a patient should receive. Now lets look at the perspective of the dental assistants from private practices and community health centers. “The closeness and friendships that I have developed with other staff and the dentist. We have become a family, which adds a positive dimension when coming into work everyday,” stated dental assistant C on the positives of working in private practice (Appendix 5, question 1a). In community health dental assistant B stated the positives of working in community health to be, “helping people whom would otherwise not get dental care,” (appendix 4, question 1a). Dental assistant B also stated that “educating patients on the importance of oral care, and also seeing the smile of a patient that leaves the office after being unable to do so, because of their appearance,” on what she enjoyed doing as a assistant in community health (Appendix 4, question 2)

With my time spent at both of these locations and interning I can say that both of these practices offer excellent care for their patients. The dentists and dental health care providers are very professional, and are able to offer the same type of procedures without any issues due to lack of resources. It does not matter where a patient chooses to receive oral care, both locations will provide the same type of care!

In fall of 2010 the US government accountability Office (GAO) reported to Congress that there were 4,377 dental Health Professional Shortage Areas (Lamster et al. 2011 (2)). With this large number it is easy to see how a lot of people become afraid of the dentist due to their lack of accessibility to oral care in some areas, which causes people to have irrational expectations of what happens when you visit the dentist. "It's across the spectrum, some do not like to come due to fear of the dentist, but most are won over in the end", stated Dr. C when asked about the attitude of patients when they first enter her private practice to receive care (Appendix 3, question 4). Then after the procedure Dr. C stated the behavior of patients "they are happy to be done and to leave, because the pain is done with. The mood is usually elevated once things are concluded." (Appendix 3, question 4a). In contrast, community health patients "are skeptical of what treatment, they will receive," stated Dr. B about Open Door's Dental Clinic patients when they first enter the office (Appendix 1, question 5).

Skepticism is way to common when it comes to the quality of care someone will receive at a community health facility. "Patients many times enter the facility with what I call, "Health Center Stigma". They think our service will be subpar. They think we will not care about them or their needs. They feel helpless, because maybe they have been to other dentists and feel there is no hope or it will be too expensive. They may be angry or agitated because of pain or life circumstances. They may be dealing with addiction or any host of other medical issues. Our job is to quickly assess the situation, figure out what ways we can be of assistance and provide the patient with a positive experience as well as education about their dental needs. It is my goal to have the patient leave with some confidence in the dentist and the dentistry care they have received. Quarterly

satisfaction surveys are providing positive results, that we are accomplishing our goals,” stated Dr. A at Open Door’s Dental Clinic (Appendix 2, question 5 addendum). In Muncie, Indiana, where Open Door’s Dental Clinic is located, the median household income from 2008-2012 was \$30,366, with 31.5% of people living below the poverty level (US Census Bureau, 2014). These numbers show that Muncie’s population is at risk for not receiving adequate dental care, due to the average household incomes.

When it comes to this “Health Center Stigma” and the addition of a patient being uninsured, an individual may suffer and lack proper dental care, which is also stated in the book the *Uninsured in America* (Lamster et al. 2011 (2)). The prolonged delay of care may cause some patients teeth to appear rotten, which may result in the inability to get a job due to their physical appearance (Lamster et al. 2011 (2)). So where do procedures fall when it comes to private practice verses community health centers?

When it comes to private practice the most frequent procedures performed are “check-ups which include exams, cleanings, x-rays, fillings, and crowns”, stated Dr. C (Appendix 3, question 3). Due to the income of patients being higher, Dr. B explains that they are more able to afford regular visits, which is observed in Dr. C’s private practice (Lamster et al. 2011 (2)). At Open Door, “fillings, extractions, dentures, partials, root canals, and crowns”, are some of the most frequent procedures performed stated Dr. B at Open Door’s Dental Clinic (Appendix 1, question 4). These procedures are not preventative measures like the ones stated by Dr. C in private practice. With the differences in patient care plans, it is easy to see how income plays a role on the care plan given to patients.

Federally Qualified Health Centers are very critical in the strategy of increasing access to oral health services in communities that are limited to the access they can receive, which is why Open Door is so important to the Muncie community (Jones et al. 2013). Across the country in 2010, 3.8 million people received dental care from a community health center, and visits to dental providers in health centers was 9.2 million visits that same year (Jones et al. 2013). When I first entered Open door I had my own stigma about what kind of dentistry I would observe. Due to my many years of receiving private practice dental care, I had my own biases about the care that the dentist at a community health center could provide. Now that I have talked and worked at Open Door's dental clinic I have come to appreciate the work done by these dentists and have learned to understand the importance of aiding those without easy access to dental care. A study conducted used 4562 patient surveys to see how patients felt about the dental services they were receiving at their health center, 3 out of 4 patients said that the care they receive is excellent or very good (Jones et al. 2013).

The quality is the same and the attention for the patient's need is consistent throughout both practices. Community health centers are required to provide preventative dental services whether that is on site or by referral, 62.0% provide emergency dental services, and 4 out of 5 health centers will guarantee that their organizations provide dental services in at least one of their facilities as of 2010 (Jones et al. 2013). Health centers hope to increase dental services from 75% in 2007 to 83% by 2020, which is one objective in the Healthy People 2020 objectives (Jones et al. 2013). With the continuation of education and addition of community health centers

around the country I hope that more people will be educated on what options they have and their fears and negative expectations will be changed.

Conclusion

The need for community health centers is so critical in our country and communities. One objective in the Healthy People 2020 oral goals is to increase patient rates from 17.5% to 33.3% in health centers (Jones et al. 2013). From cosmetic needs to resolutions in tooth decay, dentistry has significantly changed in the past few decades. This is due to the many technological advances, which have allowed us to have more options than just extractions. The attainment of a perfect smile should not depend on income alone, because not all patients have readily available funds. At Open Door's Dental Clinic of the 2790 patients seen in the last 12 months, 80 were 200% below the poverty level. Muncie has a median household income of \$30,366 in 2008-2012, which shows the need for a community health center dental clinic for those living in poverty.

A smile can say a lot about a person, such as their level of comfort in a situation while creating a first impression to those around them. No matter where an individual chooses to receive their oral care, all dental professionals strive for excellence in the care that they provide, eliminating any stigma that may be present. The "Health Center Stigma" and the addition of an individual being uninsured, may cause an individual to suffer greatly due to the lack of dental care they are able to receive (Lamster et al. 2011). Uninsured patients face an obstacle that prevents them from receiving adequate care, which also is linked to household income. Household income is a big variant in dental care (Anikeeva et al. 2013). Many of those that chose to go to Open Door's

Dental Clinics fall within poverty levels, and this limits their access to private dental care services.

With Open Door's Dental Clinic offering a waived fee scale more people are able to enjoy the benefits of adequate dental care. "Each doctor sees about 5 new patients a day, but half of them may not come in however. Each doctor also sees about 15 patients for procedures each day," stated a receptionist at Open Door's Dental Clinic. With more people expected to receive dental care in the future, due to the new health care system, dentistry will become more attainable for everyone and not just those that can afford it (Lamster et al. 2011 (2)). Private practice and community health centers are all striving to provide the best care, and no matter where a patient chooses to receive their care they should be confident that they are receiving it by trained dental professionals no matter where they choose to go (Lamster et al. 2011).

Appendix 1

Dr. B at Open Door Dental Clinic

1. What are some differences you see in private practice versus community health?

"The dispensable income is low in health center for most patients. The failure rate for coming in and following through with an appointment, which is scheduled months in advance, is also higher. The procedures are different in health centers we do more fillings and extractions while in private the procedures are higher dollar ones that are more cosmetic."

2. Now that you have told me some differences, what are some reasons that you choose to stay with community health?

"There is more of a need base, it's more rewarding and there is an immediate personal fulfillment with less stress."

3. Do you feel as if you are able to provide adequate care for patients with the resources that you are provided?

a. If Yes- What are some important resources?

"The resources are the same as private practice and more due to the government funding for upgrading, this makes cost of buying equipment is less incase a piece of equipment is destroyed. We also have volunteer resources. Our patients also have more resources for funding vs. out of pocket."

b. If No- What resources would you need to be able to provide adequate care?

4. What are some procedures you perform most frequently in the dental facility at Open Door?

"Fillings, extractions, denture, partials root canal, crowns, and cleanings. Bleach trays and some cosmetic procedure."

a. What are the least frequently?

"Cosmetic procedures and invisialign braces."

b. Why do you think those procedures fall under those categories?

"The main reasons are economic issues that our patients may face."

5. How is a patient's behavior when they enter the dental facility?

"Skeptical of what treatment, they will receive."

a. Does this change once a patient's procedure is concluded?

b. Does this differ from what you have seen in private practice?

"In private practice no one (patients) say they hate the dentist."

6. What are some changes that you may be concerned with when the changes occur in the new healthcare reform?

"Lots of changes in Dentistry will occur this may cause more of a financial stress on private practice to make margin."

a. Do these changes affect dentistry in community health?

b. Positives? Negatives?

7. What is something you appreciate most as a dentist working in community health? Why?

"It's fulfilling, because I am helping the people that need dentistry the most."

Appendix 2

Dr. A at Open Door Dental Clinic

1. What are some differences you see in private practice versus community health?

“The socioeconomic background of patients is different. The recall is 6 months versus a year and the needs of a patient are different. The conversations are different, the decay rate is higher while the dental education is lower.”

2. Now that you have told me some differences, what are some reasons that you choose to stay with community health?

“It’s more rewarding with less of a sales pitch involved. We also help more people making it very fulfilling. The people also experience life changes due to the change of their smile and their outlook also changes.”

3. Do you feel as if you are able to provide adequate care for patients with the resources that you are provided?

- a. If Yes- What are some important resources?

“The resources are ten times better than any care, I’ve seen at private practice due to the many resources available to us.”

- b. If No- What resources would you need to be able to provide adequate care?

4. What are some procedures you perform most frequently in the dental facility at Open Door?

“The most frequent procedures performed are extractions and dentures.”

- a. What are the least frequently?

“Root canal, bridges, and crowns.”

- b. Why do you think those procedures fall under those categories?

“Commitment for the upkeep that patients have to maintain, the teeth may not be in a position to recover, and also treatment plans are adjusted to fit the patients timeframes.”

5. How is a patient’s behavior when they enter the dental facility?

“This may be their (patients) last resort or only option for treatment causing a chip on their shoulders. This causes some patients to assume

that this is also my last resort or obligation on why I am here. This causes a level of skepticism for some patients that come in.

a. Does this change once a patient's procedure is concluded?

"One of my goals is to see a patient going from fear to no nervousness."

b. Does this differ from what you have seen in private practice?

"Patients mentally differ due the conversations that we have, which is why they feel no nervousness."

6. What are some changes that you may be concerned with when the changes occur in the new healthcare reform?

a. Do these changes affect dentistry in community health?

"Nothing will occur due to funding going nowhere, there may be an increase in health centers and less on sole practices, and there may be an increase in dental care in health centers."

b. Positives? Negatives?

"Kids will have more care in dentistry than today."

7. What is something you appreciate most as a dentist working in community health? Why?

"It's fulfilling because I am helping the people that need dentistry the most."

Addendum of Appendix 2 (E-mail follow up)

1. We see a higher rate of individuals who have not ever seen a dentist but may well be 30 years old, or more. We also see many individuals from extreme poverty with extensive decay. The majority of smile-changing procedures are done by tooth extraction and dentures, as opposed to cosmetic procedures like crowns, bridges and root canals. A patient is much less likely to return for a follow-up visit or comprehensive care when they are pain-free, although they may have a lot of work left to do.
2. I appreciate the way this type of dentistry changes lives. We, many times, get to meet an individual who is down on their luck and living in poverty. Being able to offer them quality dentistry at a cost they can find a way to afford is so rewarding and maintains a level of dignity for the patient. They are coming to a "free" clinic, yet they are getting the same level of quality as a regular private practice office.

3. The office that I am able to provide services from is many times better than any private practice office I have been involved with in past experiences. I attribute this to my staff's quest for cleanliness and attention to upkeep of the equipment and Open Door's commitment to providing a state-of-the-art facility for both staff and patients alike.
4. 4b. Our patients are many times saving finances for procedures for a 6 month-1 year period or must wait for a tax refund, inheritance, etc. before proceeding with elective services (i.e. If the toothache could be solved by extraction for much less money than saving the tooth with a root canal and crown, the patient will likely opt for its removal).
5. Patients many times enter the facility with what I call, "Health Center Stigma". They think our service will be subpar. They think we will not care about them or their needs. They feel helpless, because maybe they have been to other dentists and feel there is no hope or it will be too expensive. They may be angry or agitated because of pain or life circumstances. They may be dealing with addiction or any host of other medical issues. Our job is to quickly assess the situation, figure out what ways we can be of assistance and provide the patient with a positive experience as well as education about their dental needs. It is my goal to have the patient leave with some confidence in the dentist and the dentistry they have received. Quarterly satisfaction surveys are providing positive results that we are accomplishing our goals.
6. I want to believe that the focus will remain on providing a safety net for the population I serve. As long as poverty remains in this country, there will be a need for quality healthcare and affordable dentistry. Health Centers remain key players in making this goal a reality

Appendix 3

Dr. C at Royale Family Dentistry

1. Why have you chosen to own your own private practice?
"Gives me the freedom and flexibility to do things the way I feel is best, also the pay is better when owning your own practice."
2. Do you feel as if you are able to provide adequate care for patients with the resources that you have?
"I am able to provide care that is more than adequate for my patients."
 - a. If Yes- What are some of these important resources?
"Staff is the most important resource for me because the staff that has been with me a long time allow for a continuity of care"

for my patients. This also allows my patients to become like family because they choose to continue to come. Also with owning my own practice I get to provide Pro bono work for all the things I've been blessed with."

- b. If No- What resources would you need to be able to provide adequate care?

- 3. What type of procedures do you perform most frequently in you private practice?

"Check-ups, which include exams, cleanings, x-rays, fillings, and crowns.

- a. What is the least frequent?

"Implants and bone graphs."

- b. Why do you think this is the case for these procedures?

"Due to regularity of the appointments, we are able to catch things early to prevent diseases. Most patients also have insurance so they are more readily able to come to the dentist, compared to some cases where patients wait till it may be to late to save the tooth due to lack of insurance."

- 4. How is a patient's behavior when they enter your private practice?

"It's across the spectrum, some do not like to come due to fear of the dentist, but most are won over in the end."

- a. Does this change once a patient's procedure is concluded?

"Happy to be done and to leave, the pain is done with. The mood is usually elevated once things are concluded."

- 5. What are some changes you are concerned with once healthcare reform occurs, with regards to owning your own private practice?

"Every insured person from birth to death pays for dental insurance for kids that are 1 years old to 19 years old and maternity insurance. This will cause an imbalance within the system."

- a. Do these changes affect dentistry in private practice?

"Professionally no effect will occur to my private practice."

- b. Positives? Negatives?

- 6. What is something you appreciate most as a dentist working in private health?

“Being in charge, helping people, and also being self-employed. All of these allow me to have control over my own destiny, as far as how I want to run my business. For a government or health care center where you have no control over what is done in what way.”

Appendix 4

Dental Assistant B at Open Door Dental Clinic

1. Why have you chosen to work in a community health center as a dental assistant?

“I was unemployed and needed a job, and answered an ad in the paper, and when I got the job I found out it was for a community health center.”

- a. What are some positives?

“ Helping people who would otherwise not get dental care.”

- b. What are some negatives?

“People have a stigma of the care they will get. People also take advantage of the discount they receive from the Federally Qualified Health Centers (FQHC) waived scale.

2. What are some things you enjoy doing as a dental assistant in community health?

“Educating patients on the importance of oral care, and also seeing the smile of a patient that leaves the office after being unable to do so because of their appearance.”

3. Do you think that the Dentist is able to provide adequate care with the resources given to them in community health centers?

Yes I am.

- a. Do you feel as a dental assistant you are able to provide adequate care as well?

Yes, we have more than enough resources to provide care. Our offices have a lot of equipment that is newer than most private practices.

4. What are some concerns you have for when the new healthcare reform occurs?

A lot of places will not take patients with Obama care, which will cause us to become flooded with patients who will be seeking care.

5. Do you feel patients appreciate the care that you provide at Open Door's Dental Clinic?

Appendix 5

Dental Assistant C at Royale Family Dentistry

1. Why have you chosen to work in private practice as a dental assistant?

I have worked in a corporate dental clinic but I like working in private practice because I get to know the patients very well. It is a homey environment, which makes it very nice to work in.

- a. What are some positives?

"The closeness and friendships that I have developed with other staff and the dentist. We have become a family, which adds a positive dimension when coming into work everyday."

- b. What are some negatives?

"I don't have any negatives."

2. What are some things you enjoy doing as a dental assistant in private practice?

"Fillings and working on the crown machine. I love doing what I do because its very hands on, and allows me to be close to our patients."

3. Do you think that the Dentist is able to provide adequate care with the resources given to them in their private practice?

"Yes, because they are able to make the best decision without any corporate requirements with meeting quotas, which makes it very personalized."

- a. Do you feel as a dental assistant you are able to provide adequate care as well?

"Yes, absolutely."

4. What are some concerns you have for when the new healthcare reform occurs?

"I don't know how it will apply to dentistry."

5. Do you feel patients appreciate the care that you provide in private practice?

"Yes, I get a lot of hugs from patients, because they know me. The patients are very appreciative of the care they receive."

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Office of Research Integrity
Institutional Review Board (IRB)
2000 University Avenue
Muncie, IN 47306-0155
Phone: 765-285-5070

DATE: January 15, 2014

TO: Maune Kingori, none

FROM: Ball State University IRB

RE: IRB protocol # 537159-1

TITLE: Community Health Dynamics in Dentistry

SUBMISSION TYPE: New Project

ACTION: APPROVED

DECISION DATE: January 15, 2014

REVIEW TYPE: **Expedited:** This protocol had been determined by the board to meet the definition of minimal risk.

The Institutional Review Board received the above protocol. After review and consideration, the IRB concluded that this project does not meet the definition of 'research with human subjects' at this time, as specified by federal regulations at 45 CFR 46.

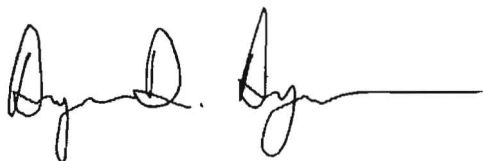
Research: A systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge.

(Activities which meet this definition constitute research for purposes of this policy, whether or not they are conducted or supported under a program which is considered research for other purposes.)

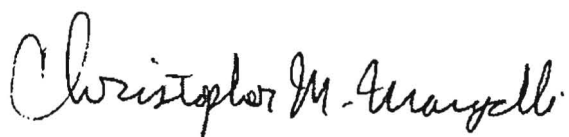
Human Subject: A living individual about whom an investigator (whether professional or student) conducting research obtains: (1) data through intervention or interaction with the individual or (2) identifiable private information.

Consequently, this project does not require IRB approval as submitted. The IRB accepts this information for our records and will retain it in our files. Thank you for providing the IRB with these materials for review. Please contact the Office of Research Integrity if any details of the study are to change so that the IRB may reconsider the protocol, if necessary.

If you have any questions regarding this decision or would like to respond in person, please contact the Office of Research Integrity.

A handwritten signature in black ink, appearing to read 'Bryan Byers', followed by a long horizontal line.

Bryan Byers, PhD/Chair
Institutional Review Board

A handwritten signature in black ink that reads 'Christopher M. Mangelli'.

Christopher Mangelli, JD, MS, MEd, CIP/Director
Office of Research Integrity